

NCL-19-7430

**Job Sheet 198389**

Ship Via:

Op No	Operation	Qty	Start Date	Due Date	Standard Setup Run Hrs Hrs	Workcenter/Supplier	Lead Time	Sign-off
100	External Load - 1	1 pcs	9/27/19	0.30	0.25	External Load - 1		Med 1 2019
						External Load - 2		
						External Load - 3		
110	External Load - 2 - B4B	1 pcs	9/27/19	0.30	4.00	External Load - 1 - B4B		MR 2019 Med 1 8/19-5
						External Load - 2 - B4B		
						External Load - 3 - B4B		
120	QC 5	1 pcs	9/27/19	0.00	0.00	QC 5 - 10		SMB 19/8/20
						QC 5 - 12		
						QC 5 - 17		
						QC 5 - 18		
						QC 5 - 19		
						QC 5 - 22		
						QC 5 - 24		
						QC 5 - 3		
						QC 5 - 43		
						QC 5 - 49		
						QC 5 - 51		
						QC 5 - 58		
						QC 5 - 68		
						QC 5 - 9		
						QC 5 - 50		
						QC 5 - 30		
						QC 5 - 40		
						QC 5 - 61		
						QC 5 - 81		
130	Packaging 3-2 - Stock - B4B	1 pcs	9/27/19	0.00	0.00	Packaging 3 - 1 - B4B		SMB 19/8/20
						Packaging 3 - 2 - B4B		
						Packaging 3 - 3 - B4B		
						Packaging 3 - 4 - B4B		
						Packaging 3 - 5 - B4B		
						Packaging 3 - 6 - B4B		
						Packaging 3 - 7 - B4B		
						Packaging 3 - 8 - B4B		
						Packaging 3 - 9 - B4B		
						Packaging 3 - 10 - B4B		
						Packaging 3 - 11 - B4B		
						Packaging 3 - 12 - B4B		
						Packaging 3 - 13 - B4B		
						Packaging 3 - 14 - B4B		
						Packaging 3 - 15 - B4B		
						Packaging 3 - 16 - B4B		

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Date: 07/29/19

Plex 7/26/19 7:54 AM Dart.Renwick.Jennife

				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
140	QC 21 - SA	1 pcs	9/27/19	0.00 0.00	QC 21 - SA - 21
					QC 21 - SA - 70
					QC 21 - SA - 53

AUG 2 1 2019

Part Op 100 - Issue S/N.
 Descriptions: 110 - (Small Fab) 1- PICK C60-2-1 AND LASER ENGRAVE AS PER DWG . SEE NOTE 3 AND 4 ON SHEET 3. 2-
 ASSEMBLE AS PER DWG 3- PERFORM ALL NECESSARY TEST USING FAI TEST SHEET.
 120 - QC5- Inspect part completeness to step on W/O)
 130 - (Identify as per dwg & Stock Location: _____)
 140 - (QC21- Final Inspection - Work Order Release)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
188-FPSS-1/4-20-3/8	Set Screw	2 Ea (2 ea)	100-External Load - 1	5048557-1
188-FSCS-1032-5/8	Flat socket cap Screw	4 Ea (4 ea)	110-External Load - 2 - B4B	5199362
32448	16-14 AWG Knife Connector	2 Ea (2 ea)	110-External Load - 2 - B4B	5151100
600.1309	Label	1 pcs (1 ea)	110-External Load - 2 - B4B	5151100
600.1309-A	Label	1 pcs (1 ea)	110-External Load - 2 - B4B	5151100
7856K75	Heat Shrink Tubing Color Black	.5000 ft (.5 ea)	110-External Load - 2 - B4B	5190246
AN4-24A	Bolt	2 Ea (2 ea)	110-External Load - 2 - B4B	5196193-1
AN5-21A	Bolt	4 Ea (4 ea)	110-External Load - 2 - B4B	5097081-1
C10-41	Strain Relief Connector	1 Ea (1 ea)	110-External Load - 2 - B4B	5083917
C45-1-1	Manual Knob Release	1 pcs (1 ea)	110-External Load - 2 - B4B	5131790
C45-10-1	Lock Spring Pin	1 Ea (1 ea)	110-External Load - 2 - B4B	5029293
C45-11-2	Locating Pin	2 Ea (2 ea)	110-External Load - 2 - B4B	5199359
C45-12-1	Lock Bushing	2 pcs (2 ea)	110-External Load - 2 - B4B	5179711
C45-12-2	Lock Shaft	1 pcs (1 ea)	110-External Load - 2 - B4B	5163665
C45-12-4	Lock Roller	1 pcs (1 ea)	110-External Load - 2 - B4B	5178364
C45-12-5	Lock Roller Pin	1 pcs (1 ea)	110-External Load - 2 - B4B	5103112
C45-12-6	Retaining Ring	2 Ea (2 ea)	110-External Load - 2 - B4B	5029303
C45-13-1	Keeper Bushing	2 pcs (2 ea)	110-External Load - 2 - B4B	5193422
C45-13-2	Teflon Keeper, Spacer	2 Ea (2 ea)	110-External Load - 2 - B4B	5027246
C45-13-3	Keeper Shaft	1 pcs (1 ea)	110-External Load - 2 - B4B	5157825
C45-13-4	Keeper	1 pcs (1 ea)	110-External Load - 2 - B4B	5170614
C45-13-5	Keeper Spring	1 pcs (1 ea)	110-External Load - 2 - B4B	5172439
C45-3-11	Actuator	1 pcs (1 ea)	110-External Load - 2 - B4B	5165546

- Removed
 - Removed

C45-3-12	Latch Roller Bearing	1 Ea (1 ea)	110-External Load - 2 - B4B	5097903
C45-3-2	Latch Roller Pin	1 pcs (1 ea)	110-External Load - 2 - B4B	5029316
C45-3-2-1	Snap Ring	2 Ea (2 ea)	110-External Load - 2 - B4B	5097898
C45-3-3	Latch Roller	1 pcs (1 ea)	110-External Load - 2 - B4B	5127763
C45-3-4	Pin	2 pcs (2 ea)	110-External Load - 2 - B4B	5133668
C45-3-4-1	Retaining Ring	4 Ea (4 ea)	110-External Load - 2 - B4B	5114803
C45-3-5	Teflon Spacer	2 Ea (2 ea)	110-External Load - 2 - B4B	5097745
C45-3-6	Latch	1 pcs (1 ea)	110-External Load - 2 - B4B	5165726
C45-3-7	Link	1 pcs (1 ea)	110-External Load - 2 - B4B	5029322
C45-3-8A	Actuator Shaft Bushing	1 pcs (1 ea)	110-External Load - 2 - B4B	5198705
C45-3-8B	Actuator Shaft Bushing	1 pcs (1 ea)	110-External Load - 2 - B4B	5182358
C45-3-9	Lever Spring	1 pcs (1 ea)	110-External Load - 2 - B4B	5089520
C45-4-1	Trunnion Bushing	2 pcs (2 ea)	110-External Load - 2 - B4B	5192908
C45-4-4A	C45 Load Beam Assembly	1 pcs (1 ea)	110-External Load - 2 - B4B	5195784 5195784
C45-4-5	Loadbeam Spacer	1 pcs (1 ea)	110-External Load - 2 - B4B	5163562
C45-5-1	Lever Stop Pin	1 Ea (1 ea)	110-External Load - 2 - B4B	5097731
C45-5-2	Lever Stop	1 pcs (1 ea)	110-External Load - 2 - B4B	5175808
C45-7-1	LOADBEAM BUMPER	1 pcs (1 ea)	110-External Load - 2 - B4B	5156421
C45-7-2	Lock Bumper	2 pcs (2 ea)	110-External Load - 2 - B4B	5200483
C45-8-1-2	Solenoid Nut	2 pcs (2 ea)	110-External Load - 2 - B4B	5175565
C45-8-2	Solenoid	1 pcs (1 ea)	110-External Load - 2 - B4B	5201006
C45-8-4	Solenoid Cover Gasket	1 pcs (1 ea)	110-External Load - 2 - B4B	5199513
C45-8-5	Solenoid Cover	1 pcs (1 ea)	110-External Load - 2 - B4B	5175959
C45-8-1	Clock Spring Cover	1 pcs (1 ea)	110-External Load - 2 - B4B	5167968
C45-9-2	Clock Spring	1 pcs (1 ea)	110-External Load - 2 - B4B	5107946
C60-10-2	Lock Spring	1 pcs (1 ea)	110-External Load - 2 - B4B	5076648
C60-11-1	Side Plate Solenoid	1 pcs (1 ea)	110-External Load - 2 - B4B	5062199
C60-12-3	Lock	1 pcs (1 ea)	110-External Load - 2 - B4B	5029342
C60-2-1	Side Plate	1 pcs (1 ea)	110-External Load - 2 - B4B	5029450
C60-3-1	Radial Bearing	2 Ea (2 ea)	110-External Load - 2 - B4B	5100180
C60-3-10	Latch Shaft	1 pcs (1 ea)	110-External Load - 2 - B4B	5029345
EL-PLUG-M	3-Prong Male Spade Plug	1 Ea (1 ea)	110-External Load - 2 - B4B	5157401
EL314-SJTOW	Long Line Electrical Wire, 14/3 Gauge replace w/ 01004-08-047	1 ft (1 ea)	110-External Load - 2 - B4B	5179682
MS21044N5	Nut	4 Ea (4 ea)	110-External Load - 2 - B4B	5192486
MS27039-4-08	Screw	1 Ea (1 ea)	110-External Load - 2 - B4B	5039330
NAS1149F0463P	Washer (AN960-416)	3 Ea (3 ea)	110-External Load - 2 - B4B	5097088-1
NAS1149F0563P	Washer (AN960-516)	8 Ea (8 ea)	110-External Load - 2 - B4B	5184942

Loctite 242 (5186572)

Loctite 620 (5194492)

Sof-T-gel (M128063)

Aeroshell grease No. 7 (5138964)

Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
100-External Load - 1	188-FPSS-1/4-20-3/8	2	40	0
110-External Load - 2 - B4B	188-FSCS-1032-5/8	4	164	0
	32448	2	67	0
	800.1309	1	100	0
	800.1309-A	1	72	0
	7856K75	1	42	0
	AN4-24A	2	80	0
	AN5-21A	4	282	0
	C10-41	1	8	0
	C45-1-1	1	17	0
	C45-10-1	1	154	0
	C45-11-2	2	42	0
	C45-12-1	2	40	0
	C45-12-2	1	10	0
	C45-12-4	1	57	0
	C45-12-5	1	32	0
	C45-12-6	2	98	0
	C45-13-1	2	44	0
	C45-13-2	2	40	0
	C45-13-3	1	20	0
	C45-13-4	1	18	0
	C45-13-5	1	93	0
	C45-3-11	1	21	0
	C45-3-12	1	66	0
	C45-3-2	1	40	0
	C45-3-2-1	2	73	0
	C45-3-3	1	13	0
	C45-3-4	2	30	0
	C45-3-4-1	4	79	0
	C45-3-5	2	83	0
	C45-3-6	1	12	0
	C45-3-7	1	0	0
	C45-3-8A	1	11	0
	C45-3-8B	1	27	0
	C45-3-9	1	115	0
	C45-4-1	2	31	0
	C45-4-4A	1	0	0
	C45-4-5	1	7	0
	C45-5-1	1	30	0
	C45-5-2	1	29	0
	C45-7-1	1	18	0
	C45-7-2	2	48	0
	C45-8-1-2	2	56	0
	C45-8-2	1	4	0
	C45-8-4	1	43	0
	C45-8-5	1	33	0
	C45-9-1	1	12	0
	C45-9-2	1	33	0
	C60-10-2	1	31	0
	C60-11-1	1	0	0
	C60-12-3	1	0	0
	C60-2-1	1	0	0
	C60-3-1	2	40	0
	C60-3-10	1	0	0
	EL-PLUG-M	1	39	0
	EL314-SJTOW	1	0	0
	MS21044N5	4	205	0
	MS27039-4-08	1	203	0
	NAS1149F0463P	3	134	0
	NAS1149F0563P	8	322	0
Part Specifications				
Specifications could not be found.				

Plex 7/26/19 7:54 AM Dart.Renwick.Jennifer



Remote Cargo Hook Test Form

C60

Work Order

198389

Customer

Serial Number

5201198

Date

2019-8-16

# of Releases	Load (Lbs.)	Release Method	Remarks	Result	Pass/fail
1	15,000	Static Hold	Hold for two Minutes and reduce load to zero	N/A	Pass
10	3,000	Electircal, 25 volts	No "hang ups" permitted	N/A	Pass
2	6,000	Electircal, 22 volts	Current shall not exceed 12.4A	8.8 Amp.	Pass
2	4,500	Electircal, 22 volts	Current shall not exceed 12.4A	9.0 Amp.	Pass
2	3,000	Electircal, 22 volts	Current shall not exceed 12.4A	8.9 Amp.	Pass
2	1,500	Electircal, 22 volts	Current shall not exceed 12.4A	8.7 Amp.	Pass
2	500	Electircal, 22 volts	Current shall not exceed 12.4A	8.8 Amp.	Pass
1	6,000	Electircal, 20 volts	Current shall not exceed 11.3A	7.8 Amp.	Pass
1	6,000	Electircal, 28 volts	Current shall not exceed 15.8A	10.1 Amp.	Pass
1	6,000	Manual		N/A	Pass
1	6,000	Impact Test	Impact shackle 10 times, shall not release	N/A	Pass
1	N/A	Solenoid Ohms	Shall not exceed 1.7-2.0 Ohms	1.9 Ohms	Pass
1	N/A	Electircal Continuity	Across both wires	N/A	Pass

Test Conducted By

Michel Lalonde

Signature:

Sylvain Boyer

QC 5 Small FAB / QA

Submit



Remote Cargo Hook Test Form

C60

Work Order

198389

Customer

Serial Number

5201198

Date

2019-8-16

# of Releases	Load (Lbs.)	Release Method	Remarks	Result	Pass/fail
1	15,000	Static Hold	Hold for two Minutes and reduce load to zero	N/A	Pass
10	3,000	Electircal, 25 volts	No "hang ups" permitted	N/A	Pass
2	6,000	Electircal, 22 volts	Current shall not exceed 12.4A	8.8 Amp.	Pass
2	4,500	Electircal, 22 volts	Current shall not exceed 12.4A	9.0 Amp.	Pass
2	3,000	Electircal, 22 volts	Current shall not exceed 12.4A	8.9 Amp.	Pass
2	1,500	Electircal, 22 volts	Current shall not exceed 12.4A	8.7 Amp.	Pass
2	500	Electircal, 22 volts	Current shall not exceed 12.4A	8.8 Amp.	Pass
1	6,000	Electircal, 20 volts	Current shall not exceed 11.3A	7.8 Amp.	Pass
1	6,000	Electircal, 28 volts	Current shall not exceed 15.8A	10.1 Amp.	Pass
1	6,000	Manual		N/A	Pass
1	6,000	Impact Test	Impact shackle 10 times, shall not release	N/A	Pass
1	N/A	Solenoid Ohms	Shall not exceed 1.7-2.0 Ohms	1.9 Ohms	Pass
1	N/A	Electircal Continuity	Across both wires	N/A	Pass

Test Conducted By

Michel Lalonde

Signature:

Sylvain Boyer

QC 5 Small FAB / QA

Submit

P/N	Revision	Drawing Specified Wire	Acceptable Alternate Wire
C2	2	MIL-C-27500 11-14416	N/A
C3	2	MIL-C-27500 11-14417	N/A
C10	3	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
C15	2	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
C20	C	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
C45	C	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
C60	C	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
C250	C	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SWA3-2	3	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SWA3-3	3	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SWA3-4	3	EL 414-ARTIC 4/14	Texcan 01121-744A5
SWA6A-2	E	Texcan 01121-724AM	N/A
SWA6A-3	E	Texcan 01121-734A5 or 01004-08-047	N/A
SWA6A-4	E	Texcan 01121-744A5	N/A
SWA6A-6	E	Texcan 04121-764A5	N/A
SWA6A-8	E	Texcan 12701-08-014 or McMaster 7081K38	N/A
SWA10A-2	3	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SWA10A-3	3	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SWA10A-4	3	EL 414 ARTIC 4/14	Texcan 01121-744A5
SWA10A-6	3	EL 616 ARTIC	Texcan 04121-764A5
SWA10A-8	3	Polar Wire 30806	Texcan 12701-08-014 or McMaster 7081K38
SWA15A-2	1	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SWA15A-3	1	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SWA15A-4	1	EL 414 ARTIC 4/14	Texcan 01121-744A5
SWA15A-6	1	EL 616 ARTIC	Texcan 04121-764A5
SWA15A-8	1	EL 816 ARTIC	Texcan 12701-08-014 or McMaster 7081K38
SAW25A-2	1	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SAW25A-3	1	3/14 SJTOW	Texcan 01121-734A5 or 01004-08-047
SAW25A-4	1	EL 414 ARTIC 4/14	Texcan 01121-744A5
SAW25A-6	1	EL 616 ARTIC	Texcan 04121-764A5
SAW25A-8	1	EL 816 ARTIC	Texcan 12701-08-014 or McMaster 7081K38

Entered: 7/2 Date: Oct 2/19



NCR No. 19-7430

WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

Route update only

Job: <u>198389</u>		DISPOSITION		DEPARTMENT/PROCESS			
Part No. <u>C series hooks and SWA Swivels</u>		Rework ☐ Scrap ☐ Use-as-is ☒		Skid-tube ☐ Machining ☐ Large Fab ☐	Cross tube ☐ Small Fab ☐ Finishing ☐	Eng. (Non-AW) ☒ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐	Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐
Date: <u>2019/08/20</u>		Sequence #:		QTY Affected: <u>1</u>		MRB (QSI042) May, 9 2019 <u>M Lee</u> Completed By <u>APAREY</u> 19-08-19 Lead hand / Supervisor <u>OCT 11 2019</u> QC / QA Coordinator <u>68</u> 9-89 <u>OCT 11 2019</u>	
Description Work Order Deviation				Disposition			
The electrical wires listed under "Acceptable Alternate Wire" on the attached sheet are acceptable to use in place of the "Drawing Specified Wire"				This deviation is acceptable. No change to fit form or function. The job route must specify the wire that is called out on the drawing The inventory P/N must reflect the same P/N that was received from a vendor			
Root Cause		FAULT CATEGORY					
Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☒ Process Improvement ☐ Human Factors ☐		Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☒ Finish ☐ Part Lost/Missing ☐ Misread ☐					
		Other/Details:					